

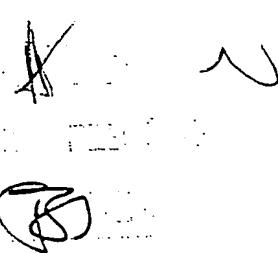
PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

To:

STEVENS, Ian
 Eric Potter Clarkson
 Park View House
 58 The Ropewalk
 Nottingham NG1 5DD
 United Kingdom



Date of mailing (day/month/year)

15 February 2005 (15.02.2005)

Applicant's or agent's file reference

LODM/ P31853PC

IMPORTANT NOTIFICATION

International application No.

PCT/GB2004/004580

International filing date (day/month/year)

29 October 2004 (29.10.2004)

1. The following indications appeared on record concerning:

the applicant the inventor the agent the common representative

Name and Address

State of Nationality

State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

the person the name the address the nationality the residence

Name and Address

GERRITSEN, Jeanet
 Loders Croklaan B. V.
 Hogeweg 1
 NL-1521 AZ Wormerveer
 Netherlands

State of Nationality

State of Residence

NL

NL

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

The person in Box 2 has been recorded as inventor and applicant for US only.

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input checked="" type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other: _____

The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

Authorized officer

Juan CRUZ

Facsimile No. (41-22) 338.89.65

Telephone No. (41-22) 338 8239

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

FIRST NOTICE INFORMING THE APPLICANT OF
THE COMMUNICATION OF THE INTERNATIONAL
APPLICATION (TO DESIGNATED OFFICES WHICH
DO NOT APPLY THE 30 MONTH TIME LIMIT
UNDER ARTICLE 22(1))

(PCT Rule 47.1(c))

To:

STEVENS, Ian
Eric Potter Clarkson
Park View House
58 The Ropewalk
Nottingham NG1 5DD
ROYAUME-UNI

S.C.L.

Date of mailing (day/month/year)
02 June 2005 (02.06.2005)

Applicant's or agent's file reference
LODM/ P31853PC

IMPORTANT NOTICE

International application No. PCT/GB2004/004580	International filing date (day/month/year) 29 October 2004 (29.10.2004)	Priority date (day/month/year) 30 October 2003 (30.10.2003)
Applicant	LODERS CROKLAAN B.V. et al	

- ATTENTION: For any designated Office(s), for which the time limit under Article 22(1), as in force from 1 April 2002 (30 months from the priority date), **does apply**, please see Form PCT/IB/308(Second and Supplementary Notice) (to be issued promptly after the expiration of 28 months from the priority date).
- Notice is hereby given that the following designated Office(s), for which the time limit under Article 22(1), as in force from 1 April 2002, **does not apply**, has/have requested that the communication of the international application, as provided for in Article 20, be effected under Rule 93bis.1. The International Bureau has effected that communication on the date indicated below:
19 May 2005 (19.05.2005)

CH

In accordance with Rule 47.1(c-bis)(i), those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

- The following designated Offices, for which the time limit under Article 22(1), as in force from 1 April 2002, **does not apply**, have not requested, as at the time of mailing of the present notice, that the communication of the international application be effected under Rule 93bis.1 :

LU, SE, TZ, UG, ZM

In accordance with Rule 47.1(c-bis)(ii), those Offices accept the present notice as conclusive evidence that the Contracting State for which that Office acts as a designated Office does not require the furnishing, under Article 22, by the applicant of a copy of the international application.

4. TIME LIMITS for entry into the national phase

For the designated Office(s) listed above, and unless a demand for international preliminary examination has been filed before the expiration of 19 months from the priority date (see Article 39(1)), the applicable time limit for entering the national phase will, subject to what is said in the following paragraph, be 20 MONTHS from the priority date.

In practice, time limits other than the 20-month time limit will continue to apply, for various periods of time, in respect of certain of the designated Offices listed above. For regular updates on the applicable time limits (20 or 21 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

It is the applicant's sole responsibility to monitor all these time limits.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.+41 22 740 14 35

Authorized officer

Nora Lindner

Facsimile No.+41 22 338 89 65

From the INTERNATIONAL BUREAU

PCT

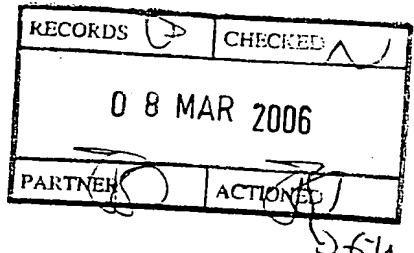
SECOND AND SUPPLEMENTARY NOTICE
INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION (TO DESIGNATED OFFICES
WHICH APPLY THE 30 MONTH TIME
LIMIT UNDER ARTICLE 22(1))

(PCT Rule 47.1(c))

Date of mailing (day/month/year)
02 March 2006 (02.03.2006)

To:

STEVENS, Ian
Eric Potter Clarkson
Park View House
58 The Ropewalk
Nottingham NG1 5DD
ROYAUME-UNI



Applicant's or agent's file reference
LODM/ P31853PC

IMPORTANT NOTICE

International application No. PCT/GB2004/004580	International filing date (day/month/year) 29 October 2004 (29.10.2004)	Priority date (day/month/year) 30 October 2003 (30.10.2003)
Applicant	LODERS CROKLAAN B.V. et al	

1. ATTENTION: For any designated Office(s), for which the time limit under Article 22(1), as in force from 1 April 2002 (30 months from the priority date), **does not apply**, please see Form PCT/IB/308(First Notice) issued previously.
2. Notice is hereby given that the following designated Office(s), for which the time limit under Article 22(1), as in force from 1 April 2002, **does apply**, has/have requested that the communication of the international application, as provided for in Article 20, be effected under Rule 93bis.1. The International Bureau has effected that communication on the date indicated below:
19 May 2005 (19.05.2005)

AU, AZ, BY, CN, CO, DZ, EP, HU, KG, KP, KR, MD, MK, MZ, NA, PG, RU, SY, TM, US

In accordance with Rule 47.1(c-bis)(i), those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

3. The following designated Offices, for which the time limit under Article 22(1), as in force from 1 April 2002, **does apply**, have not requested, as at the time of mailing of the present notice, that the communication of the international application be effected under Rule 93bis.1 :

AE, AG, AL, AM, AP, AT, BA, BB, BG, BR, BW, BZ, CA, CR, CU, CZ, DE, DK, DM, EA, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LV, MA, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PH, PL, PT, RO, SC, SD, SG, SK, SL, TJ, TN, TR, TT, UA, UZ, VC, VN, YU, ZA, ZW

In accordance with Rule 47.1(c-bis)(ii), those Offices accept the present notice as conclusive evidence that the Contracting State for which that Office acts as a designated Office does not require the furnishing, under Article 22, by the applicant of a copy of the international application.

4. TIME LIMITS for entry into the national phase

For the designated or elected Office(s) listed above, the applicable time limit for entering the national phase will, **subject to what is said in the following paragraph**, be **30 MONTHS** from the priority date.

In practice, **time limits other than the 30-month time limit** will continue to apply, for various periods of time, in respect of certain of the designated or elected Office(s) listed above. For regular updates on the applicable time limits (30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

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Nora Lindner

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IAP12 Rec'd PCT/PTO 28 APR 2006

Claims

1. Composition which is obtainable as an extract from pine needles, having therapeutic activity, comprising isocupressic acid compounds in an amount of less than 0.01 wt% and further comprising one or more organic acids.
2. Composition according to Claim 1, which contains isocupressic acid compounds in an amount of less than 0.005 wt%, preferably less than 0.003 wt%.
3. Composition according to Claim 1 or Claim 2 comprising at least two components A and B, wherein compound A is selected from the group consisting of phytosterol, polyphenols, bioflavonoids, tannins, organic acids and their complexes and compound B is selected from the group consisting of amino acids, peptides, proteins, quercetin, terpenoids, flavonol glycosides, biflavones, proanthocyanidins, polyprenols, lignans and minerals.
4. Composition as claimed in Claim 1 or Claim 2 which comprises a compound A selected from the group consisting of phytosterol, polyphenols, bioflavonoids, tannins, organic acids and their complexes and a compound B selected from the group consisting of amino acids, peptides, proteins, quercetin, terpenoids, flavonol glycosides, biflavones, proanthocyanidins, polyprenols, lignans and minerals.
5. Composition according to Claim 3 or Claim 4, wherein A is present in an amount of from 5 to 60 wt %, preferably 10 to 50 wt%, most preferably 15 to 40 wt%, and B is present in an amount of from 1 to 15 wt %, preferably 2 to 12wt %, most preferably 3 to 10 wt%, based on the weight of the composition.

6. Composition according to any one of the preceding claims which comprises shikimic acid in an amount of from 10 % to 50 % by weight of the composition.
7. Composition according to any one of the preceding claims which comprises quinic acid in an amount of from 5 % to 30 % by weight of the composition;
8. Foodstuff, food supplement or pharmaceutical composition comprising a composition of any one of Claims 1 to 7.
9. Dairy based food product comprising a composition as claimed in any one of Claims 1 to 7.
10. Dairy based food product according to Claim 9 having a water content of from 0.5 to 99.5 wt %, preferably 20 to 90 wt%, most preferably 30 to 85 wt%.
11. Dairy based food product according to Claim 9 or Claim 10 which is an oil in water (O/W) emulsion, a bicontinuous emulsion or a duplex W/O/W emulsion.
12. Dairy based food product according to Claim 9, which is a cream, milk, water continuous or bicontinuous spread, confectionery or sweet spread, chocolate, snack bar, nutritional bar, ice cream, confectionery filling or topping, bakery filling or topping, yoghurt, drinkable yoghurt, curd cheese, milk shake, slimming drink, cheese or cheese spread.
13. Dairy based food product according to any one of Claims 9 to 12, comprising a fat phase that displays a solid fat content (measured by NMR on a non-stabilised fat) at 5°C (=N5) of >10, preferably >20, and at 35°C (=N35) of <20, preferably <10, most preferably less than 5.

14. Dairy based food product as claimed in any one of Claims 9 to 13 which is essentially free of trans fatty acids.
15. Dairy based food product according to any one of Claims 9 to 14 which comprises from 0.05wt% to 10wt% of the composition of any one of Claims 1 to 7.
16. Dairy based food product according to any one of Claims 9 to 15 which has one or more of the following properties compared to a corresponding product that does not contain the composition: improved hardness, improved texture, improved aeration, improved spreadability, improved oral properties, improved mouthfeel, improved flavour, better colour, improved viscosity, improved whipping properties and improved ease of processing.
17. Composition as claimed in any one of Claims 1 to 7, foodstuff, food supplement or pharmaceutical composition as claimed in Claim 8 or dairy based food product as claimed in any one of Claims 9 to 15 for use to lower blood pressure in mammals, particularly in humans.
18. The use of a composition as claimed in any one of Claims 1 to 7, a foodstuff, food supplement or pharmaceutical composition as claimed in Claim 8 or a dairy based food product as claimed in any one of Claims 9 to 15 in the manufacture of an agent for lowering blood pressure in mammals, particularly in humans.
19. A method of lowering blood pressure in a mammal, particularly a human, which comprises providing the mammal with an effective amount of a composition as claimed in any one of Claims 1 to 7, a foodstuff, food supplement or pharmaceutical composition as claimed in Claim 8 or a dairy based food product as claimed in any one of Claims 9 to 15.
20. A method of improving one or more properties of a food product selected from hardness, texture, aeration, spreadability, oral properties, mouthfeel,

flavour, colour, viscosity, shape retention, ease of processing and health properties, which comprises incorporating into the food product a composition comprising one or more organic compounds, said composition being obtainable as an extract from pine needles, having therapeutic activity and comprising isocupressic acid compounds in an amount of less than 0.01 wt% and further comprising one or more organic acids.

21. Use of a material comprising one or more organic compounds, said material being obtainable as an extract from pine needles, having therapeutic activity and comprising isocupressic acid compounds in an amount of less than 0.01 wt% and further comprising one or more organic acids, for improving one or more properties of a food product selected from hardness, texture, aeration, spreadability, oral properties, mouthfeel, flavour, colour, viscosity, shape retention, ease of processing and health properties.

22. Process for producing the composition of any one of Claims 1 to 7, which comprises the following steps:

- a. treating pine needles with a solvent selected from water, organic solvents and mixtures thereof, to form a first extract;
- b. removing isocupressic acid compounds from the first extract, preferably by treatment with an ion exchange resin; and
- c. optionally, filtering and concentrating the treated extract to obtain the composition as a powder or a concentrate.

23. Process as claimed in Claim 22, wherein prior to step (a), the pine needles are pretreated with a non-polar solvent.